

IN THE CLAIMS

Please cancel claims 3, 5, 31, 33 and 57-110 without prejudice, and amend claims 1, 4, 6, 7, 10-13, 16, 23, 29, 32, 34, 35, 38-41, 44 and 51 as follows:

1. (Currently Amended) A physiological characteristic monitor, comprising:

an input device capable of receiving a signal from a sensor, the signal being based on a sensed physiological characteristic value of a user; and

a processor for analyzing the received signal; wherein the processor determines a dynamic behavior of the physiological characteristic value; and

wherein the processor provides an observable indicator based upon the dynamic behavior of the physiological characteristic value so determined;

wherein analyzing the received signal and determining a dynamic behavior includes repeatedly measuring the physiological characteristic value to obtain a series of physiological characteristic values and analyzing a rate of change of the physiological characteristic value over time from the series of physiological characteristic values; and

wherein a slope of a line fit to the series of physiological characteristic values is calculated if a most recent of the series of physiological characteristic values is within a qualifying range.

2. (Original) The physiological characteristic monitor of claim 1, wherein the physiological characteristic value is a measure of the concentration of blood glucose in the user.

3. (Cancelled)

4. (Currently Amended) The physiological characteristic monitor of claim [[3]]1, wherein each of the series of physiological characteristic values includes a smoothing filtered group of repeated physiological characteristic value readings.

5. (Cancelled)
6. (Currently Amended) The physiological characteristic monitor of claim [[5]]1, wherein the slope is negative.
7. (Currently Amended) The physiological characteristic monitor of claim [[3]]1, wherein the indicator includes a warning alarm; and wherein the warning alarm is responsive to the dynamic behavior profile of the physiological characteristic value.
8. (Original) The physiological characteristic monitor of claim 7, wherein the physiological characteristic value is a measure of the concentration of blood glucose in the user.
9. (Original) The physiological characteristic monitor of claim 8, wherein the warning alarm announces an anticipated glucose crash.
10. (Currently Amended) The physiological characteristic monitor of claim [[3]]1, wherein the series of physiological characteristic values spans a time period of approximately ten minutes.
11. (Currently Amended) The physiological characteristic monitor of claim [[5]]1, wherein the indicator includes an alarm warning of anticipated low glucose levels.
12. (Currently Amended) The physiological characteristic monitor of claim [[5]]1, wherein the series of physiological characteristic values spans a time period of approximately thirty minutes.
13. (Currently Amended) The physiological characteristic monitor of claim [[5]]1, wherein the indicator is provided if the slope is steeper than a threshold rate.
14. (Original) The physiological characteristic monitor of claim 13, wherein the threshold rate is approximately 3% per minute and the qualifying range is approximately 100 to 150 mg/dL.

15. (Original) The physiological characteristic monitor of claim 13, wherein the threshold rate is approximately 1% per minute and the qualifying range is approximately 60 to 140 mg/dL.

16. (Currently Amended) The physiological characteristic monitor of claim [[3]]1, wherein an anticipated physiological characteristic value is determined from an extrapolated curve based upon the series of physiological characteristic values.

17. (Original) The physiological characteristic monitor of claim 16, wherein the indicator includes a warning of an anticipated morning glucose incident.

18. (Original) The physiological characteristic monitor of claim 16, wherein the series of physiological characteristic values spans a time period of approximately one hour.

19. (Original) The physiological characteristic monitor of claim 16, wherein the extrapolated curve is determined from a slope of a line fit to the series of physiological characteristic values and an average of the series of physiological characteristic values.

20. (Original) The physiological characteristic monitor of claim 16, wherein the anticipated physiological characteristic value is determined approximately three hours before an anticipated wakeup time.

21. (Original) The physiological characteristic monitor of claim 16, wherein the indicator is provided if the anticipated value exceeds a qualifying range.

22. (Original) The physiological characteristic monitor of claim 21, wherein the qualifying range is approximately 60 mg/dL to 126 mg/dL.

23. (Currently Amended) ~~The physiological characteristic monitor of claim 3~~ A physiological characteristic monitor, comprising:

an input device capable of receiving a signal from a sensor, the signal being based on a sensed physiological characteristic value of a user; and

a processor for analyzing the received signal; wherein the processor determines a dynamic behavior of the physiological characteristic value; and

wherein the processor provides an observable indicator based upon the dynamic behavior of the physiological characteristic value so determined;

wherein analyzing the received signal and determining a dynamic behavior includes repeatedly measuring the physiological characteristic value to obtain a series of physiological characteristic values and analyzing a rate of change of the physiological characteristic value over time from the series of physiological characteristic values; and

wherein a slope of a line fit to the series of physiological characteristic values is calculated if a most recent of the series of physiological characteristic values exceeds a threshold value.

24. (Original) The physiological characteristic monitor of claim 23, wherein the slope is positive.

25. (Original) The physiological characteristic monitor of claim 23, wherein the indicator includes a warning of an anticipated hyperglycemic incident.

26. (Original) The physiological characteristic monitor of claim 23, wherein the series of physiological characteristic values spans a time period of approximately thirty minutes.

27. (Original) The physiological characteristic monitor of claim 23, wherein the indicator is provided if the slope is steeper than a threshold rate.

28. (Original) The physiological characteristic monitor of claim 27, wherein the threshold rate is approximately 3% per minute and the threshold value is approximately 180 mg/dL.

29. (Currently Amended) A method of monitoring a physiological characteristic value, comprising the steps of:

receiving a signal from a sensor, the signal being based on a physiological characteristic value of a user;

analyzing the received signal and determining a dynamic behavior of the physiological characteristic value; and

providing an indicator based upon the dynamic behavior of the physiological characteristic value;

wherein analyzing the received signal and determining a dynamic behavior includes measuring the physiological characteristic value to obtain a series of physiological characteristic values and analyzing a rate of change of the physiological characteristic over time value from the series of physiological characteristic values; and

wherein a slope of a line fit to the series of physiological characteristic values is calculated if a most recent of the series of physiological characteristic values is within a qualifying range.

30. (Original) The method of claim 29, wherein the physiological characteristic value is a glucose level.

31. (Cancelled)

32. (Currently Amended) The method of claim ~~[[31]]~~29, wherein each of the series of physiological characteristic values includes a smoothing filtered group of repeated physiological characteristic value readings.

33. (Cancelled)

34. (Currently Amended) The method of claim ~~[[33]]~~29, wherein the slope is negative.

35. (Currently Amended) The method of claim ~~[[31]]~~29, wherein the indicator includes a warning alarm; wherein the warning alarm is responsive to the dynamic behavior profile of the physiological characteristic value.

36. (Original) The method of claim 35, wherein the wherein the physiological characteristic value is a measure of the concentration of blood glucose in the user.

37. (Original) The method of claim 36, wherein the warning alarm announces an anticipated glucose crash.

38. (Currently Amended) The method of claim ~~[[33]]~~29, wherein the series of physiological characteristic values spans a time period of approximately ten minutes.

39. (Currently Amended) The method of claim ~~[[33]]~~29, wherein the indicator includes a warning of anticipated low glucose.

40. (Currently Amended) The method of claim ~~[[33]]~~29, wherein the series of physiological characteristic values spans a time period of approximately thirty minutes.

41. (Currently Amended) The method of claim ~~[[33]]~~29, wherein the indicator is provided if the slope is steeper than a threshold rate.

42. (Original) The method of claim 41, wherein the threshold rate is approximately 3% per minute and the qualifying range is approximately 100 to 150 mg/dL.

43. (Original) The method of claim 41, wherein the threshold rate is approximately 1% per minute and the qualifying range is approximately 60 to 140 mg/dL.

44. (Currently Amended) The method of claim ~~[[31]]~~29, wherein an anticipated physiological characteristic value is determined from an extrapolated curve based upon the series of physiological characteristic values.

45. (Original) The method of claim 44, wherein the indicator includes a warning of an anticipated morning glucose incident.

46. (Original) The method of claim 44, wherein the series of physiological characteristic values spans a time period of approximately one hour.

47. (Original) The method of claim 44, wherein the extrapolated curve is determined from a slope of a line fit to the series of physiological characteristic values and an average of the series of physiological characteristic values.

48. (Original) The method of claim 44, wherein the anticipated physiological characteristic value is determined approximately three hours before an anticipated wakeup time.

49. (Original) The method of claim 44, wherein the indicator is provided if the anticipated value exceeds a qualifying range.

50. (Original) The method of claim 49, wherein the qualifying range is approximately 60 mg/dL to 126 mg/dL.

51. (Currently Amended) ~~The method of claim 31,~~ A method of monitoring a physiological characteristic value, comprising the steps of:

receiving a signal from a sensor, the signal being based on a physiological characteristic value of a user;

analyzing the received signal and determining a dynamic behavior of the physiological characteristic value; and

providing an indicator based upon the dynamic behavior of the physiological characteristic value;

wherein analyzing the received signal and determining a dynamic behavior includes measuring the physiological characteristic value to obtain a series of physiological characteristic values and analyzing a rate of change of the physiological characteristic over time value from the series of physiological characteristic values; and

wherein a slope of a line fit to the series of physiological characteristic values is calculated if a most recent of the series of physiological characteristic values exceeds a threshold value.

52. (Original) The method of claim 51, wherein the slope is positive.

53. (Original) The method of claim 51, wherein the indicator includes a warning of an anticipated hyperglycemic incident.

54. (Original) The method of claim 51, wherein the series of physiological characteristic values spans a time period of approximately thirty minutes.

55. (Original) The method of claim 51, wherein the indicator is provided if the slope is steeper than a threshold rate.

56. (Original) The method of claim 55, wherein the threshold rate is approximately 3% per minute and the threshold value is approximately 180 mg/dL.

57. - 110. (Cancelled)